

**Remarks**

This Amendment is in response to the Final Office Action dated **September 28, 2007**. In the Final Office Action, claims 1-3, 5-9, 13, and 15 were objected to under 37 CFR 1.75(a); claims 1-3, 5, and 9-16 were rejected under 35 USC 102(b) as being anticipated by Dragan (5,676,543); claims 1-3, 5, 9, 10, 12, 13, 15, and 16 were rejected under 35 USC 102(b) as being anticipated by Amstutz et al (4,559,013); claims 6-8 were rejected under 35 USC 103(a) as being unpatentable over Dragan (5,676,543); and claims 6-8 and 11 were rejected under 35 USC 103(a) as being unpatentable over Amstutz et al (4,559,013).

The following comments are presented in the same order, with section headings, as the Office Action.

**Objection to the Claims**

In the Final Office Action, claims 1-3, 5-9, 13, and 15 were objected to under 37 CFR 1.75(a) for failing to particularly point out and distinctly claim the subject matter which applicant regards as his/her invention.

To clarify that the claims are directed to a method, as interpreted by Examiner, Applicants have amended the claims. Support for independent claim 10 as amended can be found at least on pages 1-4 and 8 of the application as filed. Claims 2-3, 6-9 have been amended to depend upon independent claim 10. Claims 1, 13, and 15 were cancelled. No new matter was added.

Applicants submit that the objection to the claims has been mooted by these amendments and request withdrawal of the objection.

**35 USC 102 – Dragan**

In the Final Office Action, claims 1-3, 5, and 9-16 were rejected under 35 USC 102(b) as being anticipated by Dragan (5,676,543).

Applicants have amended independent claim 10 to recite, in part, “applying the covering composition in a flowable state onto the gingival around and not onto the tooth material to be treated.”

Dragan discloses a “mold material 10 placed about the lower teeth 12, 12’ and

gum 14 and allowed to set” (col. 3, lines 55-56; col. 5, lines 46-48, emphasis added). After the material 10 is set it forms an “impression 20 [that] closely conforms to the shape of the teeth 12, 12’ and gum 14” (col. 4, lines 1-3; col. 5, lines 46-48, emphasis added). The material 10 is removed from the patient’s mouth and “filled with a layer of flowable, syringable or less viscous material 18” (col. 4, lines 7-9) and the flowable material 18 is placed “to flow around the teeth 12, 12’ and gum 14” (col. 4, line 30; col. 5, lines 49-53, emphasis added) where it is then allowed to set before removal.

In Dragan, the moldable casting material 10, as well as the layer of settable syringable material 18, cover the teeth and surrounding gingiva. Dragan does not disclose to apply a composition to the gum around the tooth material to be treated and not onto the tooth material to be treated, as recited in independent claim 10.

According to Dragan, the flowable material 18 contains an astringent and/or hemostatic agent which is applied to the gum 14 surrounding the teeth 12, 12’ by exerting a pressure on the mold material (col. 4, lines 7-10 and 27-43; col. 5, lines 49-53). Dragan, however, does not disclose a method for isolating tooth material to be treated with liquid dental treating means and to protect the surrounding gingiva from the liquid dental treating means. Contrary to this, Dragan teaches to apply liquid dental treating means to gingiva around the teeth material to be treated.

For at least these reasons, Applicants submit that Dragan does not anticipate the instant claims. Applicants request withdrawal of the rejection and submit that claims 2-3, 5, 9-12 and 16 are in condition for allowance.

### **35 USC 102 – Amstutz**

In the Final Office Action, claims 1-3, 5, 9, 10, 12, 13, 15, and 16 were rejected under 35 USC 102(b) as being anticipated by Amstutz et al (4,559,013).

Applicants have amended independent claim 10 to recite, in part, “applying the covering composition in a flowable state onto the gingival around and not onto the tooth material to be treated.”

Amstutz discloses a protective addition reaction silicone that is applied to a patient’s teeth 3 and surrounding gums 7 where it cross-links and self-cures to produce an

elastomeric material (col. 5, lines 20-30). The silicone is allowed to set and form so as to leave an impression in said silicone shaped by said teeth and braces or orthodontic appliances (col. 5, lines 32-38). After trimming, the silicone is replaced into the wearer's mouth with said silicone being held in place by said braces or other orthodontic appliances fitting into said impression and said silicone (col. 5, lines 39-42; col. 7, lines 13-15). According to an embodiment completely covering the back three or four teeth in the mouth, the undercut of the teeth holds the medical silicone in place (col. 3, lines 63-66 and col. 6, lines 24-28).

So, it is to be stated, that Amstutz only discloses a method for producing an orthodontic shield which covers teeth and braces or other orthodontic appliances for protection gums against braces or other solid dental appliances (col. 3, lines 34-36 and 49-51).

Amstutz however, does not disclose applying a composition in a liquid state onto the gingiva surrounding the dental substances to be treated and not onto the dental substance to be treated, as recited in independent claim 10. Amstutz also does not disclose a method for isolating tooth material to be treated with liquid dental treatment means to protect surrounding gingiva from the liquid dental treatment means.

For at least these reasons, Applicants submit that the inventive method is not anticipated by Amstutz. Applicants request withdrawal of the rejection and submit that claims 2-3, 5, 9, 10, 12, and 16 are in condition for allowance.

### **35 USC 103 – Dragan**

In the Final Office Action, claims 6-8 were rejected under 35 USC 103(a) as being unpatentable over Dragan (5,676,543).

As discussed above, Dragan does not anticipate independent claim 10, from which claims 6-8 as amended depend. Applicants further submit that Dragan does not make the inventive method obvious. Dragan teaches a method to form a tooth cast respectively mould applying an astringent substance to the gum. Dragan does not suggest a method for protecting gingiva surrounding tooth substance to be treated from liquid dental treatment means. If the silicone material taught by Dragan would have the inherent property to adhere to soft tissues this property would be completely hidden to the skilled person as the mould apparently fits positively to the curved surface of the tooth (compare figure on front page of Dragan). Additionally, the

force for removal due to the positive fit exceeds and conceals an eventual force due adhesion to the gingiva. So any force necessary for removing the cast or mould from the patient tooth would be attributed by the skilled person to this positive fit and not to adhesion of the mould or cast to gingiva.

For at least these reasons, Applicants submit that Dragan does not render the instant claims obvious. Applicants request withdrawal of the rejection and submit that claims 6-8 are in condition for allowance.

### **35 USC 103 – Amstutz**

In the Final Office Action, claims 6-8 and 11 were rejected under 35 USC 103(a) as being unpatentable over Amstutz et al (4,559,013).

As discussed above, Amstutz does not anticipate independent claim 10, from which claims 6-8 and 11 depend. Furthermore, Applicants submit that Amstutz also does not make the inventive method obvious. Amstutz does not provide a suggestion for protecting gingiva surrounding dental substance to be treated from liquid dental treatment means. If the material suggested by Amstutz would have the inherent property to adhere to gingiva this would be completely hidden to a skilled person because Amstutz teaches a positive fit between the shield and the teeth and braces or other orthodontic device. As the forces of the positive fit would exceed and conceal any adhesional forces, Amstutz did not give the skilled person any indication to the inventive method.

For at least these reasons, Applicants submit that Amstutz does not render the instant claims obvious. Applicants request withdrawal of the rejection and submit that claims 6-8 and 11 are patentable.

**Conclusion**

Based on at least the above, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance of claims 2-3, 5-12 and 16 is requested.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,  
VIDAS, ARRETT & STEINKRAUS

Date: March 27, 2008

By: \_\_\_\_\_ / **Jennifer L. Buss** /  
Jennifer L. Buss  
Registration No.: 57321

6640 Shady Oak Dr., Suite 400  
Eden Prairie, MN 55344-7834  
Telephone: (952) 563-3000  
Facsimile: (952) 563-3001

f:\wpwork\jlb\11733us01\_amd\_20080326.doc